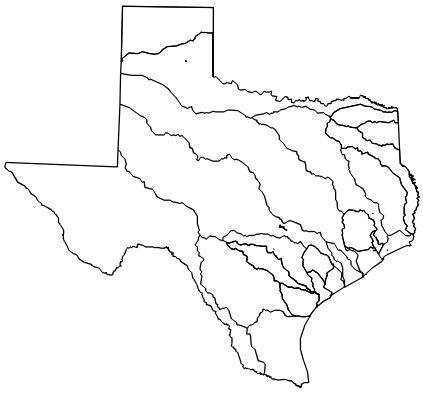
# Chapter 5
# Roles and Responsibilities

Texas' statewide watershed management approach does not supersede any agency or program components. Rather, it establishes a consistent approach to more efficiently coordinate OWRM's water quality management programs. It is important to note that not all water resource programs need to be synchronized with the basin management cycle. Thus, Chapter 5 summarizes only specific roles and responsibilities for participants that coordinate watershed management implementation and for the surface water quality programs within the TNRCC that are involved in initial implementation. Descriptions of these roles and responsibilities are presented in two ways. First, they are summarized as individual programs so that each program or organization can see its collective set of primary responsibilities. Second, they are displayed in a table that is sorted by phase of the basin management cycle, so that all participants can see how activities and responsibilities are integrated and sequenced.



## Roles and Responsibilities of OWRM and Regional Field Operations

The OWRM has taken on leadership responsibility for general coordination and oversight of the watershed management approach, with the TNRCC Field Operations Division as a key partner. Specific roles and responsibilities for each program are described in this section. The corresponding phase of the basin management cycle (see Figure 2-2) in which each program activity will be conducted is also listed.

Specific roles and responsibilities in the watershed management approach have been identified for several OWRM programs. As the OWRM positions itself to begin implementation in fiscal year 1997, programs will stress the following qualities:

- *Synchronization:* Not all water resource programs need to be synchronized with the watershed management framework—only those where synchronization will lead to more efficient, effective resource management. Throughout the watershed management approach, there are two aspects to synchronization: synchronization of program activities to coincide with the five phases of the basin management cycle, and synchronization of program resources, commitments, and outputs to coincide with a specific group of river basins according to the statewide schedule. For many key activities that are synchronized, one program team will take the lead responsibility for coordinating efforts.

- *Flexibility:* Most program teams will play both lead and supporting roles in implementing the watershed management approach. Although this chapter suggests a division of responsibility, roles and responsibilities will likely evolve over time and vary by watershed. Realistic roles for working together based on the basin management cycle have been identified, but changes will occur over time as coordination improves among teams.

- *Communication:* The primary value of Texas' watershed management approach is that it enables OWRM programs and other participating stakeholders to leverage expertise and jointly pursue a broader range of management options to address high priority water quality concerns. The success of the approach will be measured by how well implementation achieves the goals described in Chapter 1 (e.g., improving public participation, increasing the scientific validity of decisions, improving administrative efficiency, and implementing cost-effective solutions to water quality problems).

## *Basin Coordinators*

The OWRM recommends creating basin coordinator positions to support watershed management coordination at the basin level. For an assigned set of basins, each coordinator would support communication, facilitation, documentation, quality control and framework maintenance. In the future, basin coordinator positions may be integrated with the CRP team.

| **Suggested lead roles include:** | **in Phase(s):** |
|---|---|
| Assisting OWRM programs to keep basin management activities on the adopted schedule | 1–5 |
| Scheduling and facilitating OWRM meetings at key points during the basin management cycle | 1–5 |
| Attending steering committee meetings and coordinating basin management cycle tasks and activities with the divisions and other agencies and groups | 1–5 |
| Acting as principal point of contact with elected officials, other agencies, and the public on watershed management issues | 1–5 |
| Compiling and editing watershed action plans according to uniform standards and guidelines | 4 |
| Facilitating public comments on individual watershed action plans between OWRM team leaders and priority watershed subcommittee members | 4 |

| **Suggested support roles include assisting in:** | **in Phases:** |
|---|---|
| Obtaining new funding for the divisions to support basin management activities | 1–5 |
| Periodic updates on basin management progress for the TNRCC executive director, OWRM deputy director, and division directors | 1–5 |
| Development of division-specific work plans for basin management activities with OWRM team leaders | 1–5 |
| Linking division budgets to support the basin process | 1–5 |

## *Surface Water Quality Monitoring Team*

The Surface Water Quality Monitoring (SWQM) Team is responsible for determining the status of the state's waters through ambient and targeted monitoring. Building on work conducted in recent years, strategic, coordinated monitoring will be a cornerstone of this watershed management framework.

| **Lead roles include:** | **in Phase(s):** |
|---|---|
| Preparing the statewide ambient fixed-station and basin-specific strategic monitoring plans, which will be used to establish monitoring work plans for TNRCC Field Operations, SWQM, CRP contractors, and Texas Watch volunteers | 1 |
| Collecting physical, chemical, biological, hydraulic, and hydrologic data as well as using existing data to characterize point and nonpoint source pollution impacts to support modeling for TMDL assessment | 1–3 |
| Conducting intensive surveys, special studies, use attainability analysis, and related activities to establish/verify stream standards and to support development of TMDLs and allocation of waste loads | 2–3 |
| Developing quality assurance project plans for SWQM monitoring | 1 |
| Compiling and drafting components of the CWA §305(b) report, which describes the status of the state's waters | 3–5 |
| Evaluating §305(b) data and all other available information to support preparation of the §303(d) list | 4 |

| Support roles include assisting in: | in Phases: |
|---|---|
| Public outreach and technical assistance activities that communicate results of §305(b) report and §303(d) list preparation | 1–3 |
| Determination of the scale, magnitude, location, and severity of water quality issues | 3–5 |
| Determination of priority watersheds | 5–1 |
| Development of improved quality controls and methods for biological monitoring to support water quality standards determination | 2–3 |

## *Water Quality Modeling Team*

The Water Quality Modeling Team assesses water quality data to establish TMDLs and recommend water-quality-based wastewater permit effluent limits for conventional pollutants.

| Lead roles include: | in Phase: |
|---|---|
| Developing CWA §303(d) list as a key component of the priority watershed list | 5 |
| Developing and applying models to develop TMDLs for priority watersheds | 3 |
| Developing draft scenarios for point and nonpoint source pollution load reductions | 4 |
| Assessing technical effectiveness of alternative management strategies | 3 |
| Developing permit conditions, as needed, to meet antidegradation requirements | 4 |

| Support roles include assisting in: | in Phase(s): |
|---|---|
| Preparation of a targeted monitoring plan | 1 |
| Determination of the scale, magnitude, location, and severity of water quality issues | 3–5 |
| Determination of current and potential loads attributable to point and nonpoint sources | 3–4 |
| Selection of priority watersheds | 5–1 |
| Development of management strategies for watershed action plans | 3–5 |

## *Water Quality Standards Team*

The Water Quality Standards Team is responsible for systematically developing and adopting surface water quality standards through a triennial review process. Additionally, the team conducts special studies, as needed, to classify previously unclassified waters and support development of site-specific water quality standards. Water quality standards will not be revised on an annual basis within each group of river basins. Regional or site-specific revisions to existing water quality standards would most likely be the outcome of special studies in priority watersheds and would correspond with Phase 4, Strategy Development. This would allow immediate application of the standards to effluent limits in wasterwater permits to be issued in the following year during Phase 5, Implementation. The rule adoption process required for major changes to statewide water quality standards would be conducted when appropriate.

| Lead roles include: | in Phase: |
|---|---|
| Identifying areas that should be targeted for standards review and classification | 1 |
| Proposing new standards and where appropriate revisions to existing standards | 4 |
| Developing permit conditions, as needed, to meet antidegradation requirements | 4 |
| Conducting public hearings on proposed new standards | 5 |

| Support roles include assisting in: | in Phase: |
|---|---|
| Development of a monitoring plan for use attainability analyses, permit review, and new standards and criteria | 1 |
| Preparation of targeted monitoring plans (site selection for rapid bioassessments and receiving water assessments) | 1 |
| Evaluation of §305(b) reporting data to support preparation of §303(d) list | 4 |

## *Toxicity Evaluation Team*

The Toxicity Evaluation Team plays a critical role in the wastewater permitting process by providing flow, toxic, and biomonitoring criteria to the permitting section.

| **Lead roles include:** | **in Phase(s):** |
|---|---|
| Establishing biomonitoring requirements and numeric toxic limits for wastewater permits | 3–4 |
| Establishing the dry-weather low-flow limits for attaining chronic aquatic life criteria to support TMDL development | 2 |

| **Support roles include assisting in:** | **in Phase(s):** |
|---|---|
| Public outreach activities which support watershed management | 1–2 |
| Compilation and evaluation of self-reporting data from permittees | 2–3 |
| Preparation of targeted monitoring plans (site selection for flow monitoring) | 1 |
| Development of criteria for wet-weather loadings | 2–3 |

## *Texas Watch Volunteer Monitoring*

The goal of Texas Watch is to provide watershed-based environmental outreach and education through volunteer monitoring networks. Volunteer monitoring will support the basin specific monitoring objectives identified by SWQM and TNRCC Field Operations.

| **Lead roles include:** | **in Phase(s):** |
|---|---|
| Coordinating the planning and implementation of a citizen volunteer monitoring plan based on recommendations provided by the SWQM Team | 1–3 |
| Developing/revising the quality assurance project plans for citizen monitoring | 5–1 |
| Maintaining a citizen monitoring database | 3 |
| Initiating community action projects | 3 |

| **Support roles include assisting in:** | **in Phase(s):** |
|---|---|
| Public outreach activities that support watershed management | 1–3 |
| Identification of watersheds for special studies and assessments | 1 |
| Integration of professional and volunteer programs and resources | 1–5 |
| Solicitation of public input throughout the each phase of the basin management cycle | 1–5 |

## *Ecosystem Research and Assessment Team*

The Ecosystem Research and Assessment Team has responsibilities primarily connected to supporting water rights or water quantity issues. Through the watershed management approach, however, the team will begin to play a more significant role in water quality issues, specifically in monitoring and assessment.

| **Lead roles include:** | **in Phase(s):** |
|---|---|
| Developing an integrated water resource assessment protocol for use attainability analysis and instream use assessment (Rio Grande/Pecos River Index of Biological Integrity) | 2 |
| Conducting coastal assessments | 3 |
| Conducting intensive field surveys that provide detailed analysis of instream flow (hydrology), biology, stream habitat, and physical and chemical characteristics of the water body, to assess the impact of water rights diversions on water quality | 2–3 |

| Support roles include assisting in: | in Phase(s): |
|---|---|
| Collection of flow criteria and biological data for wastewater permitting and setting of water quality standards | 2 |
| Data collection and assessment for use attainability analysis reports in basins or watersheds where there is a high level of current or projected water rights permitting activity | 2 |
| Preparation of monitoring plans for intensive surveys and receiving water assessments | 1–2 |
| Prioritizing basins that require updated hydrologic models to support development of TMDLs, nonpoint source loading estimates, and water quantity permits. Some criteria to be considered when establishing priorities for water quantity modeling are:<br>◆ Date of the existing hydrologic model available for each basin<br>◆ Number of water right permits in each basin<br>◆ Assessment information provided by the Ecosystem Research Team in the CWA §305(b) report that identifies areas where water use is projected to affect water quality<br>◆ Availability of existing hydrologic models from other state or federal agencies<br>◆ Projected growth within a basin which would lead to potential water right applications | 4–1 |

## *Nonpoint Source Team*

The Nonpoint Source Team is responsible for implementing CWA §319 requirements, including identifying impacts from nonpoint sources of pollution, developing management strategies to address them, and administering a related federal grant program to support implementation of best management practices.

| Lead roles include: | in Phases: |
|---|---|
| Supporting development of permitting and nonpoint source management decisions by<br>◆ Compiling water quality and nonpoint source indicator data<br>◆ Collecting information on existing or anticipated urban and agricultural nonpoint source best management practices<br>◆ Analyzing data to determine the existing or potential impact of nonpoint source pollution as well as impaired uses attributable to nonpoint source pollution<br>◆ Drafting the nonpoint source assessment report for inclusion in the CWA §305(b) report and watershed action plan<br>◆ Updating nonpoint source management programs for each basin | 3–5 |
| Working with the CRP and basin steering committees to identify local stakeholders for implementation of CWA §319 grant work plans in targeted, high-priority watershed areas | 4–5 |
| Establishing contracts with local stakeholders and providing technical assistance for implementation of CWA §319 grant work plans in targeted, high-priority watershed areas | 4–5 |
| Evaluating the effectiveness of nonpoint source work plans in meeting nonpoint source pollution load reductions | 5–1 |

| Support roles include assisting in: | in Phase(s): |
|---|---|
| Public outreach activities that support watershed management | 1–5 |
| Evaluation of the current loadings attributable to nonpoint versus point source pollution | 3 |
| Development of total maximum daily loads and nonpoint source pollution load reductions | 3–4 |

| | |
|---|---|
| Evaluation of the effectiveness of existing or anticipated nonpoint source management activities in meeting nonpoint source pollution reduction goals | 1–5 |
| Development of management strategies for watershed action plans | 4–5 |

## *Clean Rivers Program Team*

The Clean Rivers Program Team coordinates the collection and assessment of surface water quality data within each river basin through partnerships and contracts with the TNRCC. The CRPT provides oversight essential for leveraging the resources of CRP contractors while maintaining quality control and accountability in the program.

| **Lead roles include:** | **in Phase(s):** |
|---|---|
| Developing and issuing guidance to appropriate CRP contractors regarding:<br>◆ Data collection (including water quality monitoring, collecting existing point and nonpoint source data, population estimates, existing local land use, and existing or planned local watershed and water quality protection measures)<br>◆ Use of data to support TMDL assessment and strategy development<br>◆ Assessment modeling requirements<br>◆ Public participation and education<br>◆ Management and approval of CRP contractors' quality assurance/quality control plans | 1–4 |
| Coordinating partners' data assessment to identify priority water quality problems and priority watersheds | 1,3,5 |
| Coordinating strategy development for addressing point and nonpoint source problems in priority watersheds | 3–4 |
| Compiling watershed action plan components | 4 |
| Updating and integrating CRP's long-term action plan with the statewide watershed management approach | 1 |

| **Support roles include assisting in:** | **in Phase(s):** |
|---|---|
| Basin steering committee meeting activities | 1–5 |
| Development of strategic monitoring plans and special studies | 1–2 |
| Public outreach activities that support watershed management | 1–3 |
| Watershed-based data collection | 2–3 |
| Determination of the scale, magnitude, location, and severity of water quality issues | 1 |
| Negotiations of point and nonpoint source pollution load reductions | 3–4 |

## *Border Environmental Assessment Team*

The Border Environmental Assessment Team (BEAT) is responsible for monitoring and assessing the water quality of the Rio Grande and the Nueces Coastal Basins. Because they are responsible for select phases of the implementation of the CRP, the BEAT is involved in numerous projects which require cross-program coordination and GIS applications to support ongoing watershed-based efforts.

| **Lead roles include:** | **in Phase(s):** |
|---|---|
| Assessing water quality in the Rio Grande Basin (RGB) (which includes, in Texas, the Pecos and Devils Rivers, the Arroyo Colorado and the lower Laguna Madre), and the Nueces Coastal Basins (NCBs), by drawing on a wide range of available water-quality-related data to help establish watershed priorities | 2–3 |
| Publishing updates to the Texas CRP water quality assessment reports in the RGB and NCBs | 2–3 |

| | |
|---|---|
| Developing comprehensive water quality monitoring plans for the RGB and NCBs that address local, state, and federal information needs while minimizing redundancy | 1–2 |
| Developing ways to increase opportunities for basin residents to play a stronger, better-informed role in governing water resources | 1–5 |
| Preparing QAPPs for projects in their basins | 1 |
| Managing data | 1–5 |
| Compiling watershed action plan components | 4 |
| Coordinating with local, state, and federal agencies and organizations to initiate implementation projects that address identified water quality problems | 5 |

| **Support roles include assisting in:** | **in Phases:** |
|---|---|
| Development and implementation of the Rio Grande Alliance, a forum to support a collaborative planning process to address natural resource and public health issues affecting the Rio Grande/Rio Bravo watershed | 1–5 |
| Environmental monitoring and assessment projects (both internally and externally) to fill gaps in water quality information | 2–3 |
| Preparation of guidance for CRP contractors | 1–4 |
| Establishment and maintenance of a basin steering committee, and administering steering committee meetings and public participation forums | 1–5 |

## *Wastewater Permits Section*

The Wastewater Permits Section of the Agriculture and Watershed Management Division is responsible for administering the state wastewater permitting program. This section reviews all new applications, renewals, and amendments for industrial and municipal wastewater permits.

| **Lead roles include:** | **in Phase(s):** |
|---|---|
| Evaluating applications to discharge by rule | 1–5 |
| Evaluating and approving engineering plans for domestic wastewater treatment facilities | 1–5 |
| Performing pretreatment program audits for publicly owned treatment works | 2–3 |
| Determining administrative completeness of applications for industrial and municipal wastewater permits | 5 |
| Communicating with local stakeholders and applicants during the permitting process | 4–5 |
| Defining high-priority watershed areas | |
| Participating in public hearings, public meetings, and mediation meetings in finalizing permit effluent limitations | 4–5 |
| Preparing draft industrial and municipal wastewater permits in conjunction with the Permit-by-Basin Rule (TAC §305.71) | 5 |

| **Support roles include assisting in:** | **in Phase(s):** |
|---|---|
| Finalization of wasteload allocations | 4 |
| Determination of the location and need for receiving water assessments | 5–1 |
| Public outreach | 1–5 |

## *TNRCC Regional Field Operations*

Field Operations regional offices play a key role in watershed management at the local watershed level because of their long-standing relationship with local governments and the regulated community. Regional office responsibilities with regard to water quality management include ambient monitoring, compliance inspection, education and technical assistance, responding to citizen complaints, and responding to emergency spills.

| Lead roles include: | in Phase(s): |
|---|---|
| Collaborating with the SWQM Team to establish and implement a comprehensive water quality monitoring plan | 1 |
| Completing receiving water assessments in priority segments to support permitting | 2–3 |
| Investigating fish kills and water quality complaints | 1–5 |
| Conducting special study monitoring to support TMDL development and water quality standards revisions | 1–3 |
| Reporting SWQM data, fish kills, and field investigations | 1–5 |

| Support roles include assisting in: | in Phase(s): |
|---|---|
| Public education, outreach, and technical assistance to basin steering committees | 3–5 |
| Training partners in the cooperative monitoring program to conduct receiving water assessments | 3–4 |
| Preparation of assessment reports for special studies | 3 |

# Forums for Regional and Local Coordination

To efficiently coordinate participation of basin stakeholders, the OWRM will rely on two primary forums: basin steering committees and priority watershed subcommittees. The primary functions of these forums were described in Chapter 4. Their specific roles and responsibilities are described below.

## *Basin Steering Committees*

The basin steering committees were created in 1992, in response to the Clean Rivers Act, to serve as the primary forum for local participation in basin planning and assessment. The watershed management approach relies heavily on participation from these committees and seeks to strengthen and expand their responsibilities.

| Suggested lead roles include: | in Phase(s): |
|---|---|
| Identifying and prioritizing local concerns | 1 |
| Developing/finalizing a list of priority watersheds in the basin in cooperation with the state agencies and CRP contractors | 1 |
| Recruiting local participation from stakeholders to serve on priority watershed subcommittees | 2–5 |
| Making choices between priority watersheds within the basin with regard to resource expenditures to address point and nonpoint source problems | 3–4 |
| Reviewing and commenting on the CRP financial summary reports prepared every two years by the CRP contractors and the TNRCC | 1–5 |

| Suggested support roles include assisting in: | in Phases: |
|---|---|
| Public education and outreach | 1–5 |
| Water quality data collection | 1–3 |
| Review and feedback on: | 1–5 |
| ◆ Preliminary data analysis | |
| ◆ Draft list of priority watersheds and concerns | |
| ◆ Draft monitoring plan | |
| ◆ Targeted assessments conducted by the TNRCC | |
| ◆ Proposed strategies | |

## *Priority Watershed Subcommittees*

As a subset of the basin steering committees, priority watershed subcommittees will be set up as a forum to expand local

input and support in watersheds selected for implementation of pollution control strategies. Priority watershed subcommittees will provide valuable input into the technical planning activities and strategy development phase associated with priority watersheds.

| Suggested lead roles include: | in Phase(s): |
|---|---|
| Clarifying watershed-specific management goals and objectives | 2–3 |
| Providing information on existing protection measures in priority watersheds | 2 |
| Identifying potential management options for further evaluation | 2–3 |
| Evaluating management alternatives | 3–4 |
| Identifying preferred management alternatives | 4 |

| Support roles include assisting in: | in Phase(s): |
|---|---|
| Public education and outreach | 3–5 |
| Targeting management efforts among priority watersheds | 3–4 |
| Preparation of work plans for CWA §319 grants when appropriate | 4 |

# Other Partners

Regional CRP contractors and the EPA are the other key partners in initial implementation of the watershed management approach, and their roles are described in this section. Additional partnerships with other state, federal, and non-governmental organizations are likely to emerge as a result of the watershed management approach.

## *Regional Agencies*

The TNRCC contracts with existing regional agencies, such as selected river authorities, councils of government, and water utility districts, to implement key components of the CRP. The statewide watershed management approach continues and strengthens this partnership with the CRP contractors. The primary contributions provided by the regional agencies will be the monitoring of water quality and the coordination of public participation throughout each river basin. The CRP will adjust its previous approach of conducting the same activities in all basins simultaneously, to a staggered approach that coincides with the statewide basin management schedule.

| Lead roles include: | in Phases: |
|---|---|
| Conducting local outreach | 1–5 |
| Establishing and maintaining basin steering committees, administering and hosting basin steering committee meetings and public participation forums | 1–5 |
| Preparing quality assurance project plan(s) | 1 |
| Preparing watershed monitoring plans; fixed-station ambient, systematic watershed, and targeted in response to monitoring objectives established by SWQM and Field Operations | 1 |
| Data collection and management (e.g., SWQM database) | 1–3 |
| Assessing water quality data and conditions to help establish watershed priorities | 1,3 |
| Documenting summary reports of special studies from targeted monitoring | 4 |
| Monitoring and assessing the effectiveness of watershed action plans | 1–2 |

| Support roles include assisting in: | in Phases: |
|---|---|
| Data collection for intensive surveys, special studies, and receiving water assessments, and strategic watershed monitoring | 2–3 |
| Deliberations of point and nonpoint source pollution load reductions and management decisions | 3–4 |
| Determination of the effectiveness of alternative management strategies | 2–4 |

## *U.S. Environmental Protection Agency*

A number of opportunities exist for improving coordination and efficiency between the TNRCC and the EPA. For example some of the roles and responsibilities the EPA could adopt in support of the watershed management framework include:

- Promoting the watershed management approach through EPA-sponsored activities
- Adjusting operating procedures under certain provisions of the CWA [e.g., §§305 (b), 303(d), 319] to accommodate the TNRCC's movement to a watershed-based, five-year cycle
- Targeting training and technical support to coincide with statewide watershed management schedule where appropriate
- Supporting the TNRCC's segment ranking and prioritization process
- Supporting watershed action plan adoption through participation at steering committee meetings and stakeholder outreach
- Using TNRCC recommendations and priorities to guide funding decisions, technical assistance and watershed outreach activities
- Facilitating permitting issuance according to the watershed management cycle
- Verifying the effectiveness of state and local programs
- Providing for compilation and dissemination of successful programs and management practices from all states
- Demonstrating and evaluating best management practices
- Assessing and compiling data, and incorporating it into GIS format for use at state, regional, and local levels
- Implementing pretreatment programs where needed

These roles can be assumed at various points in the basin management cycle.

The watershed management framework is designed to provide opportunities for information transfer and partner involvement at key points during the five-phase basin management cycle. However, as partnerships expand, sharing resources and distributing work loads among participants should be emphasized to prevent overloading the basin coordinators and OWRM staff with those tasks associated with coordination. The TNRCC will encourage such partnerships and collaborate with other interested partners as appropriate. Mechanisms for cooperative working arrangements will vary by basin and over time based on the number of partners that are willing and able to work together and the water quality concerns they address.

# Integration and Sequencing of Program Activities

Initial implementation of the watershed management approach will be driven by the OWRM's commitment to coordinate programs through the basin management cycle. Table 5-1 outlines in detail the activities, outputs, responsible programs, and anticipated timing for each of the 10 tasks in the five phases of the basin management cycle. As an example, Table 5-1 focuses on Group A basins for each of the five phases. The same activities, outputs, responsible programs, and timing will be required for each of the other basin groups in subsequent years based on the statewide schedule. Initial stakeholder meetings will be held primarily in basin Groups A, C, and E during fiscal year 1997 to inform stakeholders about the basin management cycle and schedule and to seek input on upcoming activities in those basins.

## Table 5-1. Sequence of Program Activities

**Acronyms:**

| | | | |
|---|---|---|---|
| BEAT | Border Environmental Assessment Team | SWQM | Surface Water Quality Monitoring |
| CRP | Clean Rivers Program | SWQS | Surface Water Quality Standards |
| CRPT | Clean Rivers Program Team (Watershed Management Team) | WWPS | Wastewater Permit Section |
| NPST | Nonpoint Source Team | | |

| **Phase 1: SCOPING AND RE-EVALUATION** (Months 1–12) | | | |
|---|---|---|---|
| **Activity** | **Output** | **Responsibility** | **Est. Time Frame** |
| **INITIATE PUBLIC OUTREACH AND EDUCATION** | | | |
| **Prepare for initial basin steering committee meetings in Group A basins** | | | Month 1 |
| 1. Watershed coordinator prepares presentation materials for explanation of watershed management approach for Group A basins | Presentation materials on general overview of the statewide approach, basin management cycle, outcomes of strategy development, and value of public participation | Basin coordinator | |
| 2. CRPT collaborates with CRP contractors to organize steering committees | Meeting agendas, expanded steering committee rosters, meeting notices | CRPT, BEAT | |
| 3. CRPT and Modeling prepare presentation to communicate the results of the §303(d) list—ranking, rationale, and methodology used to rank watersheds (segments) for Group A basins | Ranked listing of impaired water bodies for all Group A basins requiring TMDLs [i.e., §303(d) list]; matrix of permittee locations, parameters, and flows for dischargers in Group A basins | CRPT, Modeling, Toxicity Evaluation | |
| 4. CRPT prepares a presentation to summarize the need for and importance of the data that are to be collected by local stakeholders to support strategy development | Presentation materials on purpose of monitoring plans, monitoring plan guidance, targeted monitoring guidance, existing monitoring station locations, QAPP guidance , summary of how data will be used to support regulatory and nonregulatory decisions | CRPT, Modeling, SWQM, BEAT | |
| 5. SWQM, Field Operations, and Texas Watch prepare presentation on statewide and basin-specific monitoring objectives | Presentation materials on timing of statewide §305(b) report, NPS assessment report, statewide ambient and basin-specific targeted monitoring objectives, QAPPs | SWQM, Texas Watch, Field Operations | |
| 6. NPST prepares presentation on NPS objectives and issues in Group A basins | Presentation materials on nonpoint source pollution objectives and issues in basin; subset of ranked list [i.e., §303(d) list] of priority water bodies in Group A basins where nonpoint source impacts contribute to impairments or are otherwise of concern. | NPST | |

| Activity | Output | Responsibility | Est. Time Frame |
|---|---|---|---|
| 7. SWQS prepares presentation on proposed areas for standards review, and NPDES permits in need of receiving water assessments | List of water bodies where water quality standards may need to be revised and wastewater permits in need of receiving water assessments | SWQS, SWQM, CRPT | |
| 8. Prepare presentation materials to describe data necessary to determine critical flows, chronic toxicity criteria, and mixing conditions for development of water-quality-based permit limits | Presentation materials to educate stakeholders on how to support data collection needs to support wastewater permitting | Toxicity Evaluation | |
| **Participate in basin steering committee meeting #1 for Group A basins** | | | |
| 1. Water Planning and Assessment Division programs conduct outreach through presentations | Orientation for basin steering committee to five-phase approach (focus on how process supports strategy development) | Team leaders assign staff to cover multiple basin steering committee meetings | Month 2 |
| 2. Facilitate discussion to receive input on watersheds, in addition to those on the §303(d) list, that should be recognized as local priorities; establish list of priority watersheds for strategy development | Feedback on basin goals and priorities for monitoring, watersheds targeted for management solutions, standards review, currently unclassified streams, public support for priority watersheds (subset of segments where both point and nonpoint source impacts are known), and other miscellaneous watershed issues; list of parties capable of supporting point and nonpoint source monitoring and data collection<br><br>Feedback on proposed next steps of cycle and level of basin steering committee participation<br><br>Schedule for next basin steering committee meeting | CRPT, Modeling, SWQM, SWQS, Texas Watch, Toxicity Evaluation, NPST, BEAT, basin coordinator, Field Operations | |
| **Continue outreach and education efforts throughout Group A basins to communicate watershed management concepts and schedule of watershed management activities** | Flyers, brochures, basin steering committee meeting notices, public service announcements, newsletters | CRPT, Texas Watch, basin coordinator, NPST | Months 3–5 |

| Activity | Output | Responsibility | Est. Time Frame |
|---|---|---|---|
| **ESTABLISH BASIN GOALS AND PRIORITIES AND DEVELOP MONITORING PLANS** | | | |
| **Water Planning and Assessment Division coordinates with CRP contractors and other interested entities to develop strategic data collection and monitoring plans for point and nonpoint source pollutants and QAPPs for Group A basins and identify gaps in existing data** | Plans for intensive surveys, special studies, receiving water assessments, use attainability analysis, CRP systematic monitoring, CRP targeted monitoring, Texas Watch volunteer monitoring<br><br>Guidance for QAPPs to interested parties<br><br>Guidance and standard forms for nonpoint source pollution data collection | SWQM, CRPT, Texas Watch, NPST Team, SWQS, Toxicity Evaluation, BEAT, Ecosystem Research, Field Operations | Months 2–7 |
| **Rank Group A basins to set priorities for conducting basin hydrologic models to estimate naturalized base flows for TMDL development or nonpoint source loading estimates** | Priority list, list of criteria used to rank basins, list of hydrologic modeling partners to assist effort | Ecosystem Research, Modeling, NPST | Month 6 |
| **Conduct key public outreach activities in Group A basins**<br><br>1. Participate in workshops, use mailings, bulletin board systems and conferences to initiate NPS assessment report and management program update process; publish notice; provide technical assistance and educate public with special emphasis on Group A basins<br><br>2. Conduct two regional workshops in Group A basins to inform participants and obtain input on basin priorities and volunteer monitoring plans | Workshops, mailings, bulletin board, Internet home page, presentations<br><br>Recommendations for participants, monitoring training, monitoring sites<br><br>Texas Watch recommendations on basin goals, priorities and citizen monitoring | NPST, CRPT, BEAT, Field Operations<br><br>Texas Watch | Months 6–10 |

| Activity | Output | Responsibility | Est. Time Frame |
|---|---|---|---|
| **Participate in basin steering committee meeting #2** | | | Month 10 |
| 1. Summarize proposed ambient and targeted monitoring plans and responsibilities for Group A basins to raise awareness about monitoring objectives | Recommendations from basin steering committee and CRP contractors for revisions to monitoring plans and QAPP; final list of priority watersheds targeted for strategy development | CRPT, SWQM, NPST, BEAT, basin coordinator, Field Operations | |
| 2. Identify methods for expanding public participation in specific watersheds slated for strategy development in Group A basins; identify stakeholders at the local level who are responsible and interested in supporting the watershed management cycle | Recommendations to CRP contractors for recruitment of individuals or leaders to participate in strategy development in priority watersheds; CRP contractors' charge is to establish local watershed advisory groups to begin identifying potential management options for priority watersheds | CRPT, CRP contractors, NPST, BEAT, basin coordinator | |
| 3. Summarize guidance to acquire local involvement in data collection to support TMDL development which affects standards, permitting, and nonpoint source grant decisions | List of other entities within priority watersheds who can assist and support upcoming data collection and assessment activities in Group A basins | CRPT, Modeling, CRP contractors, NPST, BEAT, basin coordinator, Field Operations | |



| **Phase 2: DATA COLLECTION** (Months 12–36) | | | |
|---|---|---|---|
| **Activity** | **Output** | **Responsibility** | **Est. Time Frame** |
| **IMPLEMENT STRATEGIC DATA COLLECTION AND MONITORING PLANS** | | | |
| **Implement point and nonpoint source strategic data collection and monitoring plans in Group A basins** | | | Months 13–36 |
| 1. Targeted point and nonpoint source data collection and monitoring to support development of TMDLs for priority watersheds in Group A basins | Sampling and information collection for receiving water assessments, use attainability analysis, unclassified streams, standards revisions, intensive surveys, special studies, instream use assessments, flow estimation | SWQM, Standards, Ecosystem Research, NPST, Field Operations, CRP contractors | |
| 2. Collect baseline watershed data and information necessary to support TMDL analyses and compliance activities in Group A basins | Nonpoint source assessment report, §305(b) report, CRP contractor assessment reports, volunteer monitoring data, reports on special studies, precipitation records | | |

| Activity | Output | Responsibility | Est. Time Frame |
|---|---|---|---|
| **Obtain information from local stakeholders on existing protection measures in priority watersheds** | Local data and information which can influence management strategies (e.g., zoning ordinances, stormwater controls, riparian easements, etc.) | CRPT, NPST, CRP contractors, BEAT | Months 12–24 |
| **COMPILE AND MAINTAIN DETAILED INFORMATION AND DATA** | | | |
| **Initiate contracts for basin hydrologic modeling where appropriate in Group A basins** | Model and data for estimating naturalized base flows in a basin | Ecosystem Research | Months 15–24 |
| **Teams compile water quality data and information collected by different monitoring partners; conduct QA/QC procedures on all data and information received** | Surface water quality data that have received QA/QC review for Group A basins | SWQM, NPST, CRPT, BEAT, Field Operations | Months 24–36 |
| **Input appropriate data and information into acceptable format for SWQM databases** | Reports, data tables, SWQM data base for CWA §305(b) report, NPS assessment report, TRACS, CRP contractor database, Texas Watch volunteer monitoring data | SWQM, CRPT, NPST, Texas Watch, Field Operations | Months 18 and 24 |
| **Participate in basin steering committee meeting #3 to summarize the progress and results of data collection** | Feedback from steering committee members on monitoring results, severity of impact for known pollutants in priority watersheds | Team leaders assign staff to cover multiple basin steering committee meetings | Months 18–21 |

| **Phase 3: ASSESSMENT AND TARGETING** (Months 18–42) | | | |
|---|---|---|---|
| **Activity** | **Output** | **Responsibility** | **Est. Time Frame** |
| **ANALYZE AND EVALUATE INFORMATION AND DATA** | | | |
| **5TNRCC programs conduct data analysis and document results** | | | |
| 1. SWQM Team conducts assessment of field data to provide supporting information for model and standards development | Data tables and special studies reports to Modeling and SWQS | SWQM | Months 18–26 |
| 2. NPST coordinates the preparation of the NPS assessment report based on SWQM technical analysis of field data and input from interested parties | Draft NPS assessment report; update NPS management program for Group A basins | SWQM, NPST | Months 17–33 |

| Activity | Output | Responsibility | Est. Time Frame |
|---|---|---|---|
| 3. Receiving water assessments to classify unclassified segments for establishing standards and criteria for permit effluent limits | Designation of use for unclassified water bodies, and eventual establishment of water quality standards | CRPT, SWQS, Field Operations | Months 28–32 |
| 4. Texas Watch Team evaluates citizen monitoring data to be used as screening information for future SWQM and CRP targeted monitoring activities | Texas Watch Annual Volunteer Monitoring Report, data files | Texas Watch, SWQM | Months 30–36 |
| 5. Use attainability analysis to re-evaluate the designated use of a classified water body to allow an alternative designated use | Targeted assessment for proposed change in water quality standard, where appropriate | SWQS, Modeling, SWQM | Months 28–32 |
| 6. Instream use assessments to determine lowest flow necessary to protect aquatic life | Support information for receiving water assessments | Ecosystem Research | Months 28–32 |
| **Propose classification and applicable standards for targeted waters, complete assessment of degradation potential to meet antidegradation requirements of CWA** | Proposed classification(s) and applicable standards; written findings for degradation potential | SWQS | Months 30–32 |
| **Analyze status and trends data within the basin to identify any additional issues not recognized as priorities in Phase 1 that can be addressed during the strategy development phase in Group A basins** | Summary information for §305(b) report section(s); support information for priority issues in watershed action plan section(s) | Modeling, SWQM, CRPT, NPST | Months 28–36 |
| **QUANTIFY IMPACTS/SOURCES AND RANK WATERSHEDS** | | | |
| **Apply models to support TMDL development, evaluation of pollution impacts, and establishment of pollutant reduction goals** | TMDLs, technical reports, watershed action plan section(s) | Modeling, NPST, Ecosystem Research | Months 24–40 |
| **Summarize and distribute results of basin hydrologic models for TMDL development and nonpoint source loading estimates** | Update basin hydrologic models | Ecosystem Research | Month 28 |
| **Participate in basin steering committee meeting #4 to summarize the results of assessments** | Feedback from steering committee members on monitoring and modeling results, severity of impact for known pollutants in priority watersheds; identify preliminary management options for priority watersheds | Team leaders assign staff to cover multiple basin steering committee meetings | Month 30 |

| Activity | Output | Responsibility | Est. Time Frame |
|---|---|---|---|
| **CRP contractors prepare basin assessment reports**<br>1. Conduct assessment to determine status of water quality in segments<br>2. Compare those findings to the existing set of priority watersheds where detailed assessments have been performed<br>3. Identify new areas within Group A basins that could be addressed immediately during strategy development phase and recommend management strategies for steering committee review and comment | Basin assessment reports | CRP contractors, CRPT | Months 34–36 |
| **Begin preparing draft of water quality assessment to evaluate trends of concern, and causes and sources of impairments for inclusion into the §305 (b) report** | §305(b) report sections | CRP contractors, SWQM, CRPT, BEAT | Months 37–47 |

| **Phase 4: STRATEGY DEVELOPMENT** (Months 36–48) | | | |
|---|---|---|---|
| **Activity** | **Output** | **Responsibility** | **Est. Time Frame** |
| **DEVELOP MANAGEMENT STRATEGIES FOR PRIORITY WATERSHEDS** | | | |
| **Develop draft wasteload allocation based on TMDLs for priority watersheds in Group A basins** | Draft wasteload allocation recommendations | Modeling, SWQS, Toxicity Evaluation | Months 36–38 |
| **Participate in basin steering committee meeting #5** | Feedback from stakeholders on proposed point and nonpoint source load reductions and preliminary management options, parties responsible for implementation of management strategies, identification of funding sources and leveraging opportunities | Team leaders assign staff to cover multiple basin steering committee meetings | Month 37 |
| **Distribute load reductions between point and nonpoint sources for priority watersheds** | Target reductions for point and nonpoint sources | NPST, Modeling, Toxicity Evaluation | Month 37 |
| **Work with potential §319 grant recipients in priority watersheds to negotiate work plans that achieve targeted nonpoint source loading reductions** | Draft §319 work plans for current year funding | NPST, BEAT, basin coordinator, CRP contractors | Months 37–40 |

| Activity | Output | Responsibility | Est. Time Frame |
|---|---|---|---|
| **Collaborate to determine appropriate permit conditions to meet antidegradation requirements** | Draft wastewater permit effluent limitations and conditions | SWQS, WWPS | Months 42–48 |
| **NPST coordinates an update of the NPS management program based on new assessment information and management initiatives** | Update NPS management program | NPST | Months 42–48 |
| **DOCUMENT MANAGEMENT STRATEGIES AND RECOMMENDATIONS** | | | |
| **Compile information for watershed action plans**<br>1. Nonpoint source and point source load reduction goals<br>2. TMDL(s)<br>3. NPS watershed work plans<br>4. Wastewater wasteload allocation and key permit conditions<br>5. Recommendation for evaluating effectiveness of management strategies<br>6. Identification and recommendations for stream classification and proposed water quality standards<br>7. Recommendations for future monitoring and addressing information gaps<br>8. Additional local watershed protection plans (optional) | Draft watershed action plan for priority watersheds in Group A basins | NPST, CRPT, BEAT, basin coordinator<br>Modeling, toxicity evaluation, SWQS, SWQM, basin coordinator, CRP contractors | Months 42–48 |
| **Participate in basin steering committee meeting #6** | Comments and recommendations on revisions to watershed action plans | Team leaders assign staff to cover multiple basin steering committee meetings | Month 47 |
| **Complete §305(b) report for establishment of priorities in next iteration of basin management cycle** | §305(b) report, which incorporates NPS assessment report and river basin assessments; watershed analysis for the EPA (Water Body System) | SWQM | Month 47 |

| Phase 5: **IMPLEMENTATION** (Months 48–60) | | | |
|---|---|---|---|
| **Activity** | **Output** | **Responsibility** | **Est. Time Frame** |
| **FINALIZE WATERSHED ACTION PLANS** | | | |
| **Begin preparing draft of water quality assessment to evaluate trends of concern, and causes and sources of impairments for inclusion into the §305 (b) report** | §305(b) report sections | CRP contractors, SWQM, CRPT, BEAT | Months 49–52 |
| **Begin permit application review for those renewals and amendments which are administratively complete** | Draft wastewater permits | WWPS, SWQS | Months 49–56 |
| **Participate in basin steering committee meeting #7 to initiate strategy implementation** | Adopted watershed action plans | Team leaders assign staff to cover multiple basin steering committee meetings | Month 52 |
| **Prepare draft §303(d) list** | Draft §303(d) list | Modeling | Month 49 |
| **IMPLEMENT WATERSHED MANAGEMENT STRATEGIES** | | | |
| **Issuance of final domestic and industrial permits** | Wastewater permits | WWPS | Months 52–60 |
| **Implement §319 work plans for nonpoint source projects in priority watersheds** | §319 funding awards, contracts; implementation of best management practices | NPST, CRPT | Month 54 |
| **Revise or establish SWQS or new criteria** | Public notices, hearings, adoption of standards, revision of written regulations | SWQS | Months 56–60 |
| **Conduct outreach efforts to disseminate watershed action plans** | Meetings, presentations, mailings, Internet home page | CRPT, Texas Watch, NPST | Months 56–58 |
| **Monitor and assess implementation of watershed action plans and report back to the TNRCC** | Status reports | CRP contractors, CRPT, basin coordinator | Month 60 |